

## REMARKS

### Regarding the claim amendments

Claims 1 and 3 have been amended to more particularly point out and distinctly define what applicants regard as their invention. Claim 1 has been amended to make it more explicit that the openings which define the microimpactors are in fact openings in the sheet. This is described throughout the specification and drawings, particularly figures 2 and 4 and accompanying text.

The amendment to claim 3 clarifies that the spacer sheets are interposed between successive sheets (rather than rows) of microimpactors. This is described in the specification in Figure 4 and at page 8, lines 1-10.

Claim 8 and 9 are amended to put them into independent form.

Claim 10 is canceled.

The total number of claims remaining in the case is 9, of which 3 are independent. No further fee is believed to be required for this amendment.

### Regarding the restriction requirement

The election of the group I claims (1-9) is affirmed without traverse.

### Regarding the art rejections

The subject matter of claims 1-7 is believed to be novel and unobvious over each of the Call and Birmingham references, because neither of these references teaches or suggests the sheet architecture specified in the present claims.

For example, the examiner refers to reference numeral 10 of Call's figure 1A as showing a sheet with openings that define lines of microimpactors. But the examiner's interpretation of the Call reference is not correct. What Call in fact shows is a base 10, which, rather than having openings, has projections that form lines of micropillars. This is shown most clearly in Call's Figure 2, where the micropillars 12 are clearly shown as extending upwardly from base 10. The projections form a two-dimensional array on the base.

Similarly, Birmingham describes a base 12 having projections 13 which form the micropillars, again in two-dimensional arrays on the base. *See, e.g.*, column 1 lines 10-41. Projections 13 are not openings in the base, as would be required by the present claims.

The main difference between the present system and those of Call and Birmingham is that here the micropillars are formed in the plane of the sheet, rather than on top of the base.

The micropillar systems of Call and Birmingham suffer from the same problems as are described on page 2 of the specification with respect to similar micropillar systems of U. S. Patent No. 6,110,247: they must be micromachined, and so are expensive to manufacture; the geometries of the micropillar array (including micropillar shape and size, row-to-row spacing and intra-row spacing) are fixed by the micromachining process and cannot be varied; and are limited by their fixed geometries to specific applications. The present invention solves all of those problems by adopting a sheet architecture that allows each row of microimpactors to be fabricated separately and then be assembled with appropriate spacers to obtain a desired array.

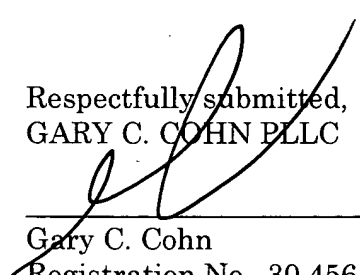
Therefore, claims 1-7 are considered to be patentable over the cited references.

Regarding claims 8 and 9

This claims are now in independent form. As they have already been indicated as being drawn to allowable subject matter, these claims are now believed to be ready for allowance.

A notice of allowance is respectfully respected with respect to all of claims 1-9.

Respectfully submitted,  
GARY C. COHN PLLC



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Gary C. Cohn  
Registration No. 30,456  
Phone: (215) 931-0372  
1147 N. 4<sup>th</sup> St., Unit 6E  
Philadelphia, PA 19123